

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

AMENDMENT TO THE CLAIMS

1-18 (Cancelled)

19. (Currently Amended) A method of driving voltage for at least one of two pieces of piezoelectric ~~elements~~ element of an actuator and two active parts in ~~[[a]]~~ each piezoelectric element, the voltage causes in at least one of said two pieces ~~[[and]]~~ the two active parts to expand and contract at the same time, respectively, while the direction of the driving voltages preserves the poling directions of the corresponding pieces or parts to prevent depoling of the piezoelectric element, the method comprising:

applying voltages on electrodes of at least one of said two pieces or two parts as two opposing phase AC ~~signal~~ signals added to a positive DC bias that has a same direction as a poling vector of at least one of said pieces or parts, where the bias is larger than or equal to an amplitude of the AC signal.

20. (Cancelled)

21. (New) The method of claim 19, wherein polarization vectors are in the same direction for said two pieces or two parts.

22. (New) The method of claim 19, wherein polarization vectors are in the opposite directions for said two pieces or two parts.

23. (New) The method of claim 22, further comprising applying half the voltages applied to an actuator in which two pieces of piezoelectric element have polarization vectors in the same direction.
24. (New) The method of claim 19, wherein at least one of said two pieces of piezoelectric elements of said actuator is C shaped.
25. (New) The method of claim 19, wherein at least one of said two pieces of piezoelectric elements of said actuator is S shaped.
26. (New) The method of claim 19, further comprising generating synchronous rotation.
27. (New) The method of claim 19, wherein the actuator has more than two pieces of piezoelectric element.